Basic Drainage area in centimeters^2 = 4389.12 × [(Recess Volume × Recess Ratio) + (Weather Deck Volume × Weather Deck Ratio)]; or

Basic Drainage area in inch^2 = (Recess Volume × Recess Ratio) + (Weather Deck Volume × Weather Deck Ratio)

Recess Volume = $(B_R \times D_R) - V_R$

B_R=average height in centimeters (feet) of the bulwark above the well deck or cockpit deck;
D_R=total deck area of the cockpit or well deck in the after ⅔ of the vessel length (LOD) measured in centimeters^2 (feet^2).
V_R=volume of any weather tight structure below the bulwark of the well deck or cockpit deck.

Recess Ratio = L_R / L_C

L_R=the length of the recess in the after ⅔ vessel length (LOD).
L_C=⅔ vessel length (LOD).

Weather Deck Volume = $(B_D \times D_D) - V_S$

B_D=average height in centimeters (feet) of the bulwark above the weather deck;
D_D=total deck area of the weather deck adjacent to bulwarks but not in way of the cockpit or well deck in the after ⅔ of the vessel length (LOD) measured in centimenters^2 (feet^2).
V_S=volume of any weather tight superstructure below the bulwark on the weather deck located within D_D.

Weather Deck Ratio = L_D / L_C

L_D=the length of the weather deck bulwark in the after ⅔ of the vessel length (LOD).
L_C=⅔ vessel length (LOD).

(b) Vessels with bulwarks in the forward part of the vessel shall not form a well with the deckhouse which retains water.

[CGD 85–080, 61 FR 966, Jan. 10, 1996; 61 FR 20557, May 7, 1996]

Subpart E—Special Installations

§ 178.510 Ballast.

(a) Any solid fixed ballast used to comply with the requirements of parts 170, 171, 178, and 179 of this chapter must be:

(1) Stowed in a manner that prevents shifting of the ballast; and

(2) Installed to the satisfaction of the cognizant OCMI.

(b) Solid fixed ballast may not be located forward of the collision bulkhead unless the installation and arrangement of the ballast and the collision bulkhead minimizes the risk of the ballast penetrating the bulkhead in a collision.

(c) Solid fixed ballast may not be removed from a vessel or relocated unless approved by the cognizant OCMI except that ballast may be temporarily moved for a vessel examination or repair if it is replaced to the satisfaction of the OCMI.

(d) Water ballast, either as an active system or permanent, must be approved by the Commanding Officer, Marine Safety Center.

PART 179—SUBDIVISION, DAMAGE STABILITY, AND WATERTIGHT INTEGRITY

Subpart A—General Provisions

Sec.
179.115 Applicability to existing vessels.

Subpart B—Subdivision and Damage Stability Requirements

179.210 Collision bulkhead.
179.212 Watertight bulkheads for subdivision.
179.220 Location of watertight bulkheads for subdivision.
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179.240 Foam flotation material.

Subpart C—Watertight Integrity Requirements

179.310 Collision bulkheads.
179.320 Watertight bulkheads.
179.330 Watertight doors.
179.340 Trunks.
179.350 Openings in the side of a vessel below the bulkhead or weather deck.
179.360 Watertight integrity.

AUTHORITY: 43 U.S.C. 1333; 46 U.S.C. 2103, 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

SOURCE: CGD 85–080, 61 FR 971, Jan. 10, 1996, unless otherwise noted.

Subpart A—General Provisions

§ 179.115 Applicability to existing vessels.

An existing vessel must comply with the subdivision, damage stability, and watertight integrity regulations which were applicable to the vessel on March 10, 1996, or, as an alternative, the vessel